Please join us at our next **NASA Carbon Monitoring System (CMS) Policy Speaker Series** talk:

Nailing reforestation to the ground as a natural climate solution

Susan Cook-Patton, Senior Forest Restoration Scientist,
The Nature Conservancy

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Global maps of 21st century forest carbon fluxes

Nancy Harris, Research Manager for Global Forest Watch,
World Resources Institute (WRI)

Wednesday, February 24, 2021
12:00PM-1:00PM Eastern Time

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The Policy Speaker Series is an effort funded through the NASA Carbon Monitoring System (CMS) Initiative and co-sponsored by the [Joint Global Carbon Cycle Center](#) (JGCCC).

About the Talks

Title: Nailing reforestation to the ground as a natural climate solution
Reforestation has garnered immense support as a natural climate solution through initiatives such as the Bonn Challenge, AFR100, and the Trillion Trees movement. However, two key questions must be answered to effectively evaluate reforestation as a climate mitigation strategy: where will the new forest go and how much carbon will you get? I will be talking about our work to map lower cost and more feasible places to restore forest cover in the US ([One Earth](#)) and potential carbon sequestration rates from natural forest regrowth ([Nature](#)). While these studies used the best-available data, those data may be decades old. In a rapidly evolving landscape and climate, new carbon monitoring systems

represent a promising way to provide up-to-date and spatially-refined carbon maps to accurately predict and monitor the success of reforestation as a climate solution.

Title: Global maps of 21st century forest carbon fluxes
Forests are crucial for efforts to mitigate climate change. Until now, data on carbon gains and losses in global forests has been piecemeal and variable, with serious implications for both local and global decision-making. Understanding the magnitude, drivers and spatial distribution of carbon fluxes across the world's forests, and how they can be managed both to reduce emissions and enhance removals, is increasingly important for climate policy and the various actors developing nature-based solutions. During this session, I will introduce a new global forest carbon monitoring framework that combines ground and Earth observation data to map forest emissions and removals transparently at scales that link more closely to mitigation activities on the ground. After summarizing results for the period 2001-2019, I will identify key uncertainties and opportunities going forward to further improve understanding of carbon fluxes across forest landscapes with data from new NASA satellite missions.

About Our Speakers

Susan Cook-Patton is a Senior Forest Restoration Scientist on the Natural Climate Solutions Science Team at The Nature Conservancy. She works to quantify the climate mitigation potential of reforestation and other natural climate solutions and infuse the best-available science into policy decisions. To do this, she collaborates with scientists across the globe, and from academic, government, and other non-governmental organizations.

She has over a decade of experience leading scientific investigations into how changes in biodiversity and climate are impacting forest, grassland, and urban ecosystems. Before joining the Nature Conservancy in 2016, she was a policy fellow at the US Forest Service and a research fellow at the Smithsonian Institution. Susan holds a PhD in Community Ecology from Cornell University, and bachelor degrees in Biology, Psychology and English from Indiana University.

Nancy Harris is Research Manager for Global Forest Watch (GFW) within the Food, Forests and Water program. GFW is an international initiative originated by WRI to provide improved data and information about the world's forests by merging the latest technology with on-the-ground partnerships. Nancy works to identify thematic and geographic research priorities for GFW and leads the acquisition and generation of new data and analytical content. She also supports in-country capacity building efforts and collaborates with GFW staff and partners to produce and communicate original, policy-relevant research that further advances global understanding of critical drivers and dynamics of forest change.

Prior to joining WRI, Nancy worked as a Carbon and Land Use Specialist in the Ecosystem Services unit of Winrock International, where she managed Winrock's spatial analysis team, published several peer-reviewed papers on forest carbon cycling and spatial modeling of land cover change, and provided technical guidance to multiple stakeholders on climate change mitigation options in the land sector.

Nancy holds a B.S. in Biology and Environmental Studies from Tufts University in Medford, MA and a Ph.D. in Systems Ecology from SUNY College of Environmental Science and Forestry in Syracuse, NY. Her research focused on the measurement and modeling of forest carbon in a Puerto Rican rain forest.

Past Seminars: Check out recordings of previous Policy Speaker Series talks on the CMS website: http://carbon.nasa.gov/policy_series.html

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